

Unit 3**Essential Question: How Are Plants Alike and Different?****Major Understandings:**

LE 1.1b Plants require air, water, nutrients and light in order to thrive.

LE 1.2a Living things grow, take in nutrients, breathe, reproduce, eliminate waste and die.

LE 2.1a Some traits of living things have been inherited.

LE 2.1b Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation.

LE 2.2a Plants and animals closely resemble their parents and other individuals in their species.

LE 2.2b Plants and animals can transfer specific traits to their offspring when they reproduce

LE 3.1b Each plant has different structures that serve different functions in growth, survival and reproduction.

LE 4.1a Plants and animals have life cycles. These might include beginning a life, development into an adult, reproduction as an adult and eventually death.

LE 4.1b Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.

LE 4.1c The length of time from the beginning of development to death of the plant is called its life span.

LE 4.1d Life cycle of some plants include changes from seed to mature plant.

LE 5.1a Growth is the process by which plants and animals increase in size.

LE 5.2a Plants respond to changes in their environment.

Grade 2

Lesson 1 – Plants and Lights**Objective(s):**

- To promote scientific inquiry.
- To use a scientific method to plan and conduct a long-term investigation.
- To design an experiment to find out how light changes the way a plant grows.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Science Background TE 127a Preparation TE 127a-27b	Unit 2 Experiment Experiment Lesson Plan TE 126a-7b	Options for Inquiry TE 127a LM 45-47	

Grade 2

Lesson 2 – What Are Living and Nonliving Things?**Objective(s):**

- To sort objects as living and nonliving.
- To identify and describe characteristics that distinguish living and nonliving things.
- To understand that living things reproduce and that nonliving things do not reproduce.

LE 1.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 128a-b Video Segment 2600 When Minutes Count TE 130	Unit 3, 4.1 Assess Prior Knowledge TE 130 Investigate TE 131	Investigate Further TE 131, LM 50 Daily Inquiry TE 130, DI 13 Inquiry Skill Mini-Lesson TE 131, IS 13 Intervention TE 130	

Lesson 3 – What Are Living and Nonliving Things?**Objective(s):**

- To sort objects as living and nonliving.
- To identify and describe characteristics that distinguish living and nonliving things.
- To understand that living things reproduce and that nonliving things do not reproduce.

LE 1.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Science Background TE 132	Unit 3, 4.1 Reading in Science TE 132-135 Insta-Lab TE 133	Reaching All Learners • ESL TE 133 Reading Review TE 135 Reading Support & Homework: pp. 28-29	Curriculum Integration Writing – TE 135 Math – TE 133

Grade 2

Lesson 4 – What Do Animals Need?**Objective(s):**

- To observe the needs of animals.
- To identify and describe the needs of animals.
- To understand that the needs of animals depend on their size and type.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 128a-b Video Segment 2601 When Minutes Count TE 136	Unit 3, 4.2 Assess Prior Knowledge TE 136 Investigate TE 137	Investigate Further TE 137 Daily Inquiry TE 136, DI 14 Inquiry Skill Mini-Lesson TE 137, IS 14 Enrichment TE 136	

Lesson 5 – What Do Animals Need?**Objective(s):**

- To observe the needs of animals.
- To identify and describe the needs of animals.
- To understand that the needs of animals depend on their size and type.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 4.2 Reading in Science TE 138-141 Insta-Lab TE 139	Reaching All Learners • ESL/ESOL TE 139 Reading Review TE 141 Reading Support & Homework: pp. 30-31	Curriculum Integration Writing – TE 140 Math – TE 141

Grade 2

Lesson 6 – What Do Plants Need?

Objective(s):

- To predict and observe what plants need to grow.
- To understand that plants’ needs depend on their size and type.
- To know the factors that influence the growth of living things.

LE 1.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE Video Segment 2602 When Minutes Count TE 142	Unit 3, 4.3 Assess Prior Knowledge TE 142 Investigate TE 143	Investigate Further TE Daily Inquiry TE 142, DI 15 Inquiry Skill Mini-Lesson TE 14, IS 15 Enrichment TE 142	

Lesson 7 – What Do Plants Need?

Objective(s):

- To predict and observe what plants need to grow.
- To understand that plants’ needs depend on their size and type.
- To know the factors that influence the growth of living things.

LE 1.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 4.3 Reading in Science TE 144-147 Insta-Lab TE 145	Reaching All Learners • ESL/ESOL TE 145 Reading Review TE 147 Reading Support & Homework: pp. 32-33	Curriculum Integration Writing – TE 145, 147

Grade 2

Lesson 8 – What Are the Parts of a Plant?

Objective(s):

- To observe plants to understand how stems carry water.
- To identify the main parts of plants and describe their structural characteristics.
- To identify sunlight, air, water, and nutrients from soil as things plants need to grow.

LE 3.1b, 4.1a,b,d, 1.1b, 1.2a

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 154a-b Science Background TE 156 Video Segment 2606 When Minutes Count TE 156	Unit 3, 5.1 Assess Prior Knowledge TE 156 Investigate TE 157	Investigate Further TE 157 Daily Inquiry TE 156, DI 16 Inquiry Skill Mini-Lesson TE 15, IS 16	

Lesson 9 – What Are the Parts of a Plant?

Objective(s):

- To observe plants to understand how stems carry water.
- To identify the main parts of plants and describe their structural characteristics.
- To identify sunlight, air, water, and nutrients from soil as things plants need to grow.

LE 3.1b, 4.1a,b,d, 1.1b, 1.2a

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 5.1 Reading in Science TE 158-161	Reaching All Learners • ESL/ESOL TE 160 • Intervention TE 158 Reading Review TE 161 Reading Support & Homework: pp. 35-36	Curriculum Integration Writing – TE 161 Art – TE 159

Grade 2

Lesson 10 – How Do Plants Differ?**Objective(s):**

- To classify leaves.
- To compare and describe the structural characteristics of different plants.
- To use structural characteristics of plants to group them.

LE 3.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 154a-b Video Segment 2607 When Minutes Count TE 162	Unit 3, 5.2 Assess Prior Knowledge TE 162 Investigate TE 163	Investigate Further TE 163, LM 58 Daily Inquiry TE 162, DI 17 Inquiry Skill Mini-Lesson TE , IS	

Lesson 11 – How Do Plants Differ?**Objective(s):**

- To classify leaves.
- To compare and describe the structural characteristics of different plants.
- To use structural characteristics of plants to group them.

LE 3.1b

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 5.2 Reading in Science TE 164-167 Insta-Lab TE 165	Reaching All Learners • ESL TE 165 Reading Review TE Reading Support & Homework: pp. 37-38	Curriculum Integration Writing – TE 166 Math – TE 167

Grade 2

Lesson 12 – What Are Some Plant Life Cycles?**Objective(s):**

- To communicate how a life grows and changes during its life cycle.
- To describe how the offspring of plants are similar to and different from the plants they came from.

LE 2.1a, 2.2a, b, 4.1 a,b,c,d

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 154a-b Video Segment 2608 When Minutes Count TE 163	Unit 3, 5.3 Assess Prior Knowledge TE 163 Investigate TE 164	Investigate Further TE 164 Daily Inquiry TE 163, DI 18 Inquiry Skill Mini-Lesson TE 164, IS 18	

Lesson 13 – What Are Some Plant Life Cycles?**Objective(s):**

- To communicate how a life grows and changes during its life cycle.
- To describe how the offspring of plants are similar to and different from the plants they came from.

LE 2.1a, 2.2a, b, 4.1 a,b,c,d

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 5.3 Reading in Science TE 170-175 Insta-Lab TE 173	Reaching All Learners • ESL TE 173 Reading Review TE 175 Reading Support & Homework: pp. 39-40	Curriculum Integration Physical Education – TE 175 Art – TE 171

Grade 2

Lesson 14 – How Does Weather Change?

Objective(s):

- To observe weather and identify how it changes over time.
- To recognize patterns in weather.
- To describe how the weather changes from season to season.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 182a-b Science Background TE 184 Video Segment 2306 When Minutes Count TE 184	Unit 3, 6.1 Assess Prior Knowledge TE 184 Investigate TE 185	Investigate Further TE 185 Daily Inquiry TE 184, DI 19 Inquiry Skill Mini-Lesson TE 185, IS 19	

Lesson 15 – How Does Weather Change?

Objective(s):

- To observe weather and identify how it changes over time.
- To recognize patterns in weather.
- To describe how the weather changes from season to season.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Science Background TE 188	Unit 3, 6.1 Reading in Science TE 186-191 Insta-Lab TE 187	Reaching All Learners • Reteach TE 184 • ESL TE 189 Reading Review TE 191 Reading Support & Homework: pp. 42-43	Curriculum Integration Health – TE 190 Writing – TE 191 Music – TE 187

Grade 2

Lesson 16 – Why Do We Measure Weather?

Objective(s):

- To identify tools used to measure the weather.
- To use metric and customary units to measure the weather.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 182a-b Video Segment 2307 When Minutes Count TE 192	Unit 3, 6.2 Assess Prior Knowledge TE 192 Investigate TE 193	Investigate Further TE 193 Daily Inquiry TE 192, DI 20 Inquiry Skill Mini-Lesson TE 193, IS 20	

Lesson 17 – Why Do We Measure Weather?

Objective(s):

- To identify tools used to measure the weather.
- To use metric and customary units to measure the weather.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Science Background TE 197	Unit 3, 6.2 Reading in Science TE 194-199 Insta-Lab TE 196	Reaching All Learners <ul style="list-style-type: none"> • Reteach TE 192 • ESL TE 196 Reading Review TE 199 Reading Support & Homework: pp. 44-45	Curriculum Integration Writing – TE 198 Language Arts – TE Math – TE 195, 199

Grade 2

Lesson 18 – What Is the Water Cycle?**Objective(s):**

- To use observations to infer how heat affects water.
- To explain how water gets into the air.
- To describe the water cycle.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
Plan Ahead for Activities TE 182a-b Science Background TE 200 Video Segment 2308 When Minutes Count TE 200	Unit 3, 6.3 Assess Prior Knowledge TE 200 Investigate TE 201	Investigate Further TE 201 Daily Inquiry TE 200, DI 21 Inquiry Skill Mini-Lesson TE 201, IS 21	

Lesson 19 – What Is the Water Cycle?**Objective(s):**

- To use observations to infer how heat affects water.
- To explain how water gets into the air.
- To describe the water cycle.

Advanced Planning/ Notes to Teachers	Core Lesson	Differentiated Support/ Homework	Connections
	Unit 3, 6.3 Reading in Science TE 202-206 Insta-Lab TE 205	Reaching All Learners <ul style="list-style-type: none"> • ESL TE 204 • Above-level TE 202 Reading Review TE 206 Reading Support & Homework: pp. 46-47	Curriculum Integration Math – TE 203, 205 Writing – TE 206